After several minutes of troubleshooting, the maintenance chief fixed the leak. The cause was simple: When the defueling valve was pushed up to drain the fuel and then released, a rubber sealing ring slipped out and kept the valve from resealing. The maintenance chief reseated the sealing ring, but it proved to be a tricky task.

Many lessons can be learned from this chain of events. First, simple and routine procedures can have very unexpected outcomes. One method for preventing injury in the event of a random accident is to make sure participating personnel are wearing the proper PPE. The young airman who sampled the fuel from the helicopter could have suffered major injuries if he had not been wearing goggles, gloves and an apron. Second, it always helps to have extra personnel to assist in an emergency. The key to success, though, is efficient communication, combined with standard procedures and calm heads. The maintenance team acted quickly and decisively. This communication flow allowed for increased situational awareness among the ship's crew and a timely solution to an escalating problem.

PPE—It Does a Body Good!

By AN Jessie Pierce, VFA-25

On a bright sunny morning, I came bopping into the line shack of VFA-25. My supervisor stopped me as I was coming through the door, not to say "Good morning," but to say "Pierce! Fuel samples, 422, ASAP!" It was the beginning of a great day. I gathered my cranial, splash-proof goggles, face shield, gloves, apron, tool pouch, fuel-sample kit, and a fuel adapter. I could tell my supervisor was under pressure that morning, because he was running circles around me, maybe to get me to move faster.

I went to the aircraft, donned my personal protective equipment (PPE), and took a fuel sample. I wiped down the fuel-sample port, placed the sample jar under the fuel adapter, hooked up to the jet, and pushed up, just like the plane-captain manual states. The sample port stuck open. Even worse, the fuel started spewing out. In my haste to get a drip pan to catch the fuel, I went right underneath the stream of fuel, covering myself. I quickly used my Phillips screwdriver to un-stick the port, but my arms and face were showered with fuel.

I had followed the procedures I'd been taught for fuel leaks, which always includes a chance of taking a fuel bath, but I should have gone around the spraying fuel instead of under it.

I had to hurry home, take a shower, and change my clothes. All of the equipment I'd been using also had to be cleaned. When I came back to work, my supervisor filled out a mishap report. A fuel-sample port getting stuck open is a common problem; causes include corrosion, dirt, the design of the port, or the way you take the sample. This problem is one of the reasons we protect ourselves with PPE. Getting showered in fuel can cause burns, headaches, and infection.

So what can we do about this problem until a better port is designed? Even taking care to inspect the fuel port for dirt or corrosion before the sample is taken is not enough to prevent someone from being sprayed with fuel. The best thing to do is to follow proper procedures and to wear all the required PPE. Be aware of your surroundings, especially when the hangar-bay doors are open, which can expose you to wind or jet blast from a turning jet on the flight line. This precaution isn't mentioned in the procedures for taking a fuel sample, but it is good ORM and, for me, a lesson learned.